Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection
Division for Air Quality
200 Fair Oaks Lane, 1st Floor
Frankfort, Kentucky 40601
(502) 564-3999

Draft

AIR QUALITY PERMIT

Issued under 401 KAR 52:020

Permittee Name:	**Eastern Kentucky University**
Mailing Address:	**521 Lancaster Avenue, Richmond, KY 40475**
Source Name:	**Eastern Kentucky University**
Mailing Address:	**521 Lancaster Avenue Richmond, KY 40475**
Source Location:	**521 Lancaster Avenue, Richmond, KY 40475**
Permit:	**V-08-039**
Agency Interest:	**2820**
Activity:	**APE20080001**
Review Type:	**Title V / Operating**
Source ID:	**21-151-00007**
Regional Office:	**Frankfort Regional Office 643 Teton Trail Frankfort, KY 40601 (502) 564-3358**
County:	**Madison**
Application Complete Date:	**November 13, 2008**
Issuance Date:	
Revision Date:	
Expiration Date:	

John S. Lyons, Director
Division for Air Quality

Revised 05/07/07

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	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
V-03-025	**Initial Issuance**	**50693**	**2/8/1999**	**10/24/2003**	**Initial Title V Operating Permit**
V-03-025 Revision 1	**Significant Revision**	**APE20050001**	**5/31/2005**	**7/20/2005**	**Installation of Baghouse on Coal Fired Boilers**
V-03-025 Revision 2	**Significant Revision**	**APE20070001**	**2/1/2007**	**5/18/2007**	**Add Fed. Enforceable Coal Use limits for MACT Preclusion**
V-08-039	**Renewal**	**APE20080001**	**11/13/2008**	**---------**	**Added CAM plan for coal boiler, added limits to Section 112(j) of the Clean Air Act**

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

Emission Units 01, 02 & 04 Coal Fired Indirect Heat Exchangers

Description:

Units 01 & 02	Spreader Stoker
Primary fuel:	Coal
Maximum Continuous Rating:	65.8 MMBtu/hr each boiler
Control Device:	Baghouse with 99% efficiency (2005)
Year Constructed:	1960 & 1964

Unit 04	Spreader Stoker
Primary fuel:	Coal
Maximum Continuous Rating:	84.0 MMBtu/hr each boiler
Control Device:	Baghouse with 99% efficiency (2005)
Year Constructed:	1967

APPLICABLE REGULATIONS:

401 KAR 61:015**,** Existing indirect heat exchangers, applicable to an emissions unit with a capacity of less than 250 MMBtu/hr, which commenced before April 9, 1972.

40 CFR Part 64, Compliance Assurance Monitoring (CAM) (For Particulate Emissions)

NON-APPLICABLE REGULATIONS:

401 KAR 51:017, Prevention of Significant Deterioration of Air Quality. Permittee has elected to accept voluntary federally enforceable operating and emission limitations to preclude applicability of these standards.

Section 112(j) of the Clean Air Act. Permittee has elected to accept voluntary federally enforceable operating and emission limits to preclude applicability of these standards.

1. Operating Limitations:

a. To preclude CAA Section 112 (j), the source-wide usage rate of coal from all affected facilities shall not exceed 15,000 tons per year (12 month rolling total) and shall further be restricted so the emission limitations as set forth in **Section D - Source Emission Limitations And Testing Requirements** for hydrogen chloride (HCl) and total HAPS are not exceeded.

b. See **Section D - Source Emission Limitations And Testing Requirements**.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

a. Pursuant to 401 KAR 61:015, Section 4, particulate emissions from each stack shall not exceed 0.35 lb/MMBtu based on a three-hour average.

Continuous Compliance Demonstration Method:
Particulate Emission Rate = [EF] / [coal heating value (MMBtu/ton)].

Emission factor of 0.314 lb/ton shall be used to demonstrate ongoing compliance until new emission factors derived from subsequent compliance testing, that will replace the emission factor currently listed in this permit, and shall be used to calculate future emissions. Baghouse removal efficiency may be included as a separate variable in the emission rate formula when it is specifically determined by subsequent compliance stack testing and not included in EF.

b. Pursuant to 401 KAR 61:015, Section 4 (3)(b), emissions shall not exceed forty (40) percent opacity based on a six-minute average except that, for stoker fired indirect heat exchangers, a maximum of sixty (60) percent opacity is permissible for not more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning the fire box or blowing soot.

c. Pursuant to 401 KAR 61:015, Section 4 (3)(c), emissions shall not exceed forty (40) percent opacity based on a six-minute average except during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

d. Pursuant to 401 KAR 61:015, Section 5 (1), the sulfur dioxide emissions shall not exceed 5.98 lb/MMBtu based on a twenty-four-hour average.

Compliance Demonstration Method:
Sulfur Dioxide Emission Rate = [38**S** (lb/ton)*] / [coal heating value (MMBtu/ton)]
*Where **S**=% Sulfur in the coal

3. Testing Requirements:

a. Pursuant to 401 KAR 50:045, the permittee shall conduct one performance test for particulate matter (PM) using US EPA method 5 and HCl using US EPA method 26, before the start of the fourth year of this permit to demonstrate compliance with the applicable standard. The permittee shall submit a schedule within six months from the date of the third year issuance of the final permit V-08-039, to conduct the test. The high and low-pressure levels across the baghouse normal for operation shall be determined during this performance test.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. Pursuant to 401 KAR 50:045, the permittee shall use EPA Reference Method 9 to determine opacity of stack emissions as determined by **4. c. Specific Monitoring Requirements**.

4. Specific Monitoring Requirements:

a. Pursuant to 401 KAR 61:015, Section 6 (6), monitoring of operations for sulfur dioxide emissions shall be conducted by representative (per delivered shipment) sampling and analysis of fuel. Records of the fuel sampling and analysis; and sulfur and heat content shall be maintained for inspection upon request by any duly authorized representative of the Division for Air Quality.

b. Pursuant to 401 KAR 61:015, Section 6 (3), the rate of fuel combustion shall be recorded monthly. The heating value and ash content of fuels shall be ascertained per delivered shipment.

c. Pursuant to 401 KAR 52:020, Section 26, once per day when the unit is in operation, the permittee shall conduct a visual observation of emissions from the baghouse. If visual emissions are seen, the permittee shall perform an EPA Reference Method 9 test, or document the reason why the test could not be performed in the logbook (see **5. c. Specific Recordkeeping Requirements**.

d. Pursuant to 401 KAR 52:020, Section 26, the permittee shall comply with the monitoring requirements, opacity under paragraph c. of this subsection. excluding the startup and shut down periods, if any six-minute average opacity value exceeds the opacity standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and boiler system and make any repairs. If a Reference Method 9 test cannot be performed, the reason for not performing the test shall be documented.

e. Pursuant to 401 KAR 52:020, Section 26, the baghouse pressure drop shall be monitored and recorded continuously. Pressure drop on a three-hour average must be maintained within the high operating limit and the low operating limit per the CAM submittal to the Division on December 9, 2008.

f. Pursuant to 401 KAR 52:020, Section 26, the baghouse shall be equipped with a high and low pressure audible alarm which will sound any time the three hour average exceeds the limits and replace any torn bags promptly, upon inspection, to avoid any pressure losses

5. Specific Recordkeeping Requirements:

a. Pursuant to 401 KAR 52:020, Section 26, records of fuel usage, sulfur content, and heat content of each delivered shipment shall be maintained.

b. Pursuant to 401 KAR 52:020, Section 26, records, including those documenting the results of each compliance test, shall be kept pursuant to 401 KAR 52:020, Section 26 and 401 KAR 61:015, Section 6.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. Pursuant to 401 KAR 52:020, Section 26, records of the daily visual opacity observations and the Method 9 readings shall be kept in a logbook. The permittee shall record the date, time, and results of the visual observations and Method 9 tests or reason why Method 9 test could not be performed, and shall record any inspections or corrective actions taken due to opacity excursions.

6. Specific Reporting Requirements:

a. Pursuant to 401 KAR 52:020, Section 26, the permittee shall report the fuel usage, sulfur content, and heat content.

b. Pursuant to 401 KAR 52:020, Section 26, the permittee shall report the number of excursions (excluding startup, shutdown, and malfunction data) above the opacity standard, date and time of excursions, opacity value of the excursions, and percentage of the opacity data showing excursions above the opacity standard in each calendar quarter.

c. Pursuant to 401 KAR 52:020, Section 26, the permittee shall report the number of excursions above the sulfur dioxide standard, date of excursions, value of the excursions, and percentage of the sulfur dioxide data showing excursions from emission limitation in each calendar quarter.

d. See **Section D - Source Emission Limitations And Testing Requirements**.

e. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements**, Conditions 5, 6, 7, 8 and 9.

7. Specific Control Equipment Operating Conditions:

a. Pursuant to 401 KAR 50:055, the baghouse shall be operated at all times that one or more of the boilers are in use. The baghouse shall be maintained and operated in accordance with the manufacturer's specifications and operating instructions.

b. Pursuant to 401 KAR 52:020, Section 26, records regarding the maintenance of the control equipment shall be maintained.

c. See **Section E - Source Control Equipment Requirements** for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Pursuant to 40 CFR 64, CAM Plan for Emission Units #1, #2, and #4 -PM/PM_{10}

Applicable CAM Requirement	PM/PM_{10} limits
General Requirements	(1) 0.35 lb/MMBtu filterable particulate limit, based on a 3-hour average (2) Less than 40% Opacity except (1) maximum of 60% opacity for not more than 6 consecutive minutes in any consecutive 60 minutes during cleaning the fire-box or blowing soot, and (2) during boiler startup when manufacturer's recommendations are followed.
Monitoring Methods and Location	(1) Differential pressure across the baghouse shall be monitored; proper operation of the baghouse shall be maintained. (2) Daily visual observations of the stack plume shall be performed. USEPA reference Method 9 shall be performed if visual emissions are observed.
Indicator Ranges The permittee may adjust the indicator ranges pursuant to 40 CFR 64.7 (e) based on results from subsequent performance tests for PM compliance and with the Division's approval.	(1) The baghouse has an operating range of 2-8" (w.c.) of pressure drop, in accordance with manufacturer's specifications. An inspection of the baghouse shall be performed if pressure drops occur outside the operating range. Baghouse cleaning will begin at 6" w.c. differential pressure and stop at 2" w.c. differential pressure. (2) The presence of visible emissions during normal boiler operations shall require the permittee to initiate opacity monitoring in accordance with USEPA Reference Method 9. The permissible indicator range for Method 9 readings shall be 0 – 40% opacity under normal operations.
Data Collection Frequency	(1) Baghouse differential pressure is recorded continuously on an ISQL server. (2) Visual observations of the stack plume are performed daily when the boiler is operating. USEPA Reference Method 9 observations (Three six minute readings) are collected and an inspection of the baghouse is performed when visible emissions from the stack are observed.
Averaging Period	(1) Baghouse differential pressure readings records from the ISQL server will be analyzed to show pressure drop as a function of time. Pressure drop values will be marked on a scaled axis if a graph is used. Exceedances and excursions of the operating range will be specifically identified. Analysis of the baghouse differential pressure readings will be included in the semiannual report. (2) Reference method 9 readings, if required, shall be reported as 6-minute averages.
Recordkeeping	(1) Baghouse operating parameters shall be maintained for a period of 5 years. (2) Daily visual observations and Method 9 readings (if any) shall be maintained for a period of 5 years.
QA/QC	(1) An excursion for PM emissions shall be defined as (1) three consecutive baghouse differential pressure readings outside the indicator range listed above in a rolling 24-hour period and (2) one six minute average opacity reading collected using USEPA Reference Method 9 that is above the opacity limit mentioned above. (2) The permittee shall initiate an investigation and take corrective action for each excursion. (3) The Quality Improvement Plan (QIP) threshold for baghouse pressure drop is 5 excursions within a rolling 3-month period. This threshold level is 5 percent (5%) of the total 24-hour data recording periods. The QIP threshold for Method 9 observations is either (1) 4 excursions in a rolling 3-month period or (2) 3 consecutive weekly excursions. (4) If the QIP threshold is triggered in a semiannual reporting period, a QIP shall be developed and implemented. Baghouse monitoring parameters will be maintained and operated in accordance with manufacturer recommendations. Records of Method 9 certifications will be maintained. Differential pressure instrumentation will be calibrated a minimum of once per year. The baghouse will be externally inspected daily and internally inspected at least once per year. Records of all inspections and calibrations will be maintained.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 06 **Natural Gas Fired Indirect Heat Exchanger**

Description:

Maximum Continuous Rating: 38.14MMBtu/hr
Year Constructed: July 1994

APPLICABLE REGULATIONS:

401 KAR 59:015, New Indirect Heat Exchangers applicable to an emission unit with a capacity less than 250 MMBtu per hour and commenced on or after April 9, 1972.

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating units, for units less than or equal to 100 MMBtu/hour but greater than or equal to 10 MMBtu/hour commenced after June 9, 1989.

1. Operating Limitations:

None

2. Emission Limitations:

a. Pursuant to 401 KAR 59:015, Section 4, particulate emissions shall not exceed 0.1 lb/MMBtu based on a three-hour-average.

b. Pursuant to 401 KAR 59:015 Section 4(2) and 401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc, visible emissions from each unit shall not exceed 20 percent opacity based on a six minute average, except for one six minute period per hour of not more than 27 percent opacity.

c. Pursuant to 401 KAR 59:015, Section 4(2)(c), opacity shall not exceed twenty (20) percent based on a six-minute average except during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

d. Pursuant to 401 KAR 59:015, Section 5(1), sulfur dioxide emission shall not exceed 0.8 lb/MMBtu based on a twenty-four-hour average.

e. Pursuant to 401 KAR 60:005, incorporating by reference 40 CFR 60.43c (d), the PM and Opacity standards apply at all times except during periods of startup, shutdown, or malfunction.

f. Each unit is assumed to be in compliance with the PM, SO_2, and opacity standards while burning natural gas.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

Pursuant to 401 KAR 52:020, Section 26, the permittee shall monitor the amount of natural gas combusted.

5. Specific Recordkeeping Requirements:

Pursuant to 401 KAR 52:020, Section 26, the permittee shall record the amount of fuel combusted each calendar month.

6. Specific Reporting Requirements:

See **Section F – Monitoring, Recordkeeping, and Reporting Requirements**, Conditions 5, 6, 7, 8 and 9.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Units 07 – 34 (GB01 – GB28) 28-Natural Gas Fired Indirect Heat Exchangers

Description: Primary Fuel: Natural Gas
Maximum Continuous Rating: see Chart Below
Construction Commenced: between 1959 and 1970

For Campus Buildings and Dormitories

Emission Point #	Fuel Input Rating (MMBtu/hr)	Date Installed
07	2.677	1968
08	6.28	1968
09	1.68	1963
10	3.6	1964
11	2.4	1962
12	10.463	1968
13	5.231	1968
14	1.68	1960
15	1.08	1960
16	1.2	1964
17	1.2	1964
18	1.2	1964
19	2.4	1964
20	8.37	1970
21	3.6	1967
22	5.22	1969
23	5.22	1969
24	1.44	1966
25	3	1961
26	2	1961
27	2.88	1961
28	1.68	1961
29	1.44	1959
30	2.4	1963
31	2.4	1963
32	2.4	1964
33	2.6	1965
34	2	1964

APPLICABLE REGULATIONS:
401 KAR 61:015, Existing Indirect Heat Exchangers applicable to an emission unit with a capacity less than 250 MMBtu per hour and commenced before April 9, 1972.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1. Operating Limitations:

None

2. Emission Limitations:

a. Pursuant to 401 KAR 61:015, Section 4, particulate emissions from each stack shall not exceed 0.34 lb/MMBtu based on a three-hour-average.

b. Pursuant to 401 KAR 61:015, Section 4 (3)(b), emissions shall not exceed forty (40) percent opacity based on a six-minute average except that, for stoker fired indirect heat exchangers, a maximum of sixty (60) percent opacity is permissible for not more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning the fire box or blowing soot.

c. Pursuant to 401 KAR 61:015, Section 4 (3)(c), emissions shall not exceed forty (40) percent opacity based on a six-minute average except during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

d. Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emission from each stack shall not exceed 2.80 lb/MMBtu based on a twenty-four-hour average.

e. Each unit is assumed to be in compliance with the PM, SO_2, and opacity standards while burning natural gas.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

Pursuant to 401 KAR 52:020, Section 26, the permittee shall monitor the total estimated amount of gas combusted on site.

5. Specific Recordkeeping Requirements:

Pursuant to 401 KAR 52:020, Section 26, the permittee shall keep records of the estimated amount of gas combusted on a monthly basis.

6. Specific Reporting Requirements:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 35 Paint Spray Booth

Description:
Maximum operating rate: 0.5gal/hr
Year Constructed: 1992

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations applicable to emissions units commenced on or after July 2, 1975.

1. Operating Limitations:

None

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010, Section 3(2), particulate emissions shall not exceed 2.34 lb/hr based on a three-hour-average.

b. Pursuant to 401 KAR 59:010, Section 3(1), visible emissions shall not equal or exceed twenty (20) percent opacity.

c. There are no individual limits on Hazardous Air Pollutants (HAPs) for the affected facility. Emission limitations are source wide, as given in **Section D - Source Emission Limitations and Testing Requirements**.

Compliance Demonstration Method

This unit is deemed to be in compliance with a. and b. above if the maximum operating rate of 0.5gal/hr is not exceeded and the booths are operated in accordance with procedure provided by the manufacturer.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

Pursuant to 401 KAR 52:020, Section 26, the amount of each coating used shall be monitored on a monthly basis.

5. Specific Recordkeeping Requirements:

Pursuant to 401 KAR 52:020, Section 26, records of each coating used and hours of operation shall be kept on a monthly basis.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

See **Section F – Monitoring, Recordkeeping, and Reporting Requirements**, Conditions 5, 6, 7, 8 and 9.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

Description	**Generally Applicable Regulation**
1. Coal and Ash Handling	401 KAR 63:010 1. Source shall maintain records of amount of coal delivered and ash disposed. 2. Reasonable procedures shall be used to minimize fugitive emissions.
2. Woodworking Shop	401 KAR 61:020
3. 19 Natural Gas Fired Emergency Generators Ranges 15 to 100 KW (25 to 170 HP)	None

Emission Point #	Output Rating (KW)	Location
EG 01	80	Telford Hall
EG 04	45	Campbell
EG 05	15	Foster
EG 07	30	Moore
EG 08	12.5	Cammack
EG 11	12.5	Keith
EG 13	15	Keene Johnson
EG 18	85	Fitzpatrick
EG 20	30	Case
EG 21	15	Wallace
EG 22	100	Rowlett
EG 23	57	Mattox
EG 24	45	Gentry
EG 28	30.5	Commonwealth
EG 29	100	Begley
EG 33	35	Keene
EG 34	45	Carter
EG 35	75	Model
EG 39	15	Stratton

4. 2 Natural Gas Fired Melting Furnaces — None
Ranges 117 to 264 KW (157 to 354 HP)

Emission Point #	Output Rating (MMBtu/hr)	Location
	0.4	Campbell Room 118
	0.9	Campbell Room 118

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

5. Seven (7)Natural Gas Fired Kilns None
Ranges 8.8 to 132 KW (11.8 to 177 HP)

Emission Point #	Output Rating (MMBtu/hr)	Location
	0.03	Campbell Room 118
	0.4	Campbell Room 118
	0.25	Campbell Room 103
	0.374	Campbell Room 103
	0.1	Campbell Sculptor Patio
	0.4	Campbell Sculptor Patio
	0.4	Campbell Sculptor Patio

Description **Generally Applicable Regulation**

6. 24 Diesel Fired Emergency Generators None
Ranges 12 to 335 KW (20 to 560 HP)

Emission Point #	Output Rating (KW)	Location
EG 02	100	Walters Hall
EG 03	45	Burrier
EG 06	150	Coates
EG 09	12	Roark
EG 10	50	Combs Class
EG 12	25	Combs Hall
EG 14	180	McGregor Hall
EG 15	200	Powell
EG 16	15	Burnham Hall
EG 17	15 (single phase rating)	Sullivan
EG 19	45	Clay
EG 25	12	Mattox
EG 26	12	Martin
EG 27	100	Student services
EG 30	180	Dupree
EG 31	49.5	Alumni Coliseum
EG 32	40	Moberly
EG 36	100	Dizney
EG 37	150	Perkins
EG 38	30	Funderburk
EG 40	35	Sayre
EG 41	35	McKinney Skills
EG 42	275	Bizzack
EG 43	335	Ramsey Heat Plant
	230	Business & Technology

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. Particulate matter, sulfur dioxide, and hydrogen chloride emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. To preclude CAA Section 112 (j), source-wide emissions of Hydrogen Chloride (Single Hazardous Air Pollutant (HAP)) shall not exceed 9.0 tons in any consecutive twelve months period. HCl emissions shall be calculated using the following equation:

   HCl, Single HAP Emissions (tons) = (Total tons coal burned) x (0.34 lb/ton)/ (2000 lb/ton),

   To demonstrate compliance with this emission limitation, the total twelve-month rolling HCl emissions shall be calculated monthly and reported semi-annually (see Section F).

4. To Preclude CAA Section 112 (j), source-wide emissions of Total Hazardous Air Pollutants (HAPs) shall not exceed 22.5 tons in any consecutive twelve months period. Total HAPs emissions shall be calculated using the following formula:

$$\text{Total HAP Emissions (tons/ year)} = \sum_{k=1}^{5} HAPs_k / (2000 \text{ lb/ton})$$

   Where, k = source-wide HAPs emissions for an emission type
   $HAPs_1$ = (Total tons coal burned) x (0.50 lb/ton)*
   $HAPs_2$ = (Total MMSCF natural gas burned) x (1.89 lb/MMSCF)**
   $HAPs_3$ = (Total diesel burned in 1000 gal.) x (0.53 lb/ 1000 gal.)***
   $HAPs_4$ = (Total paint used in paint booth in gal.) x (0.93 lb/ gal.)****
   $HAPs_5$ = (500 lbs/year)***** for all remaining insignificant activities

   ** = Emission factor determined from AP-42 Section 1.4
   *** = Emission factor determined from AP-42 Section 3.3
   **** = Emission factor determined data supplied for EIS
   *****= Emissions estimate determined from data supplied with application

   To demonstrate compliance with this emission limitation, the total twelve-month rolling Total HAPs Emissions shall be calculated monthly and reported semi-annually (see Section F).

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

5. To preclude CAA Section 112 (j), the permittee shall notify the Division at least sixty (60) days prior to any change in coal supplier, fuel type, or fuel mixture, used in EU 01, EU 02, and EU 04, from those fuels used to establish the HCl emission factor used above for determining compliance. This notification shall include a fuel analysis of the new fuel for Hydrogen Chloride. The Division may request additional stack testing be completed in addition to this fuel analysis.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

2. The permittee shall report as soon as possible (electronically or by telephone call), all control equipment malfunctions, to the Regional Office listed on the title page of this permit. Within ten days a written report shall be prepared and sent to the Regional Office that contains: The time and date(s) or duration of the malfunction, a description of the malfunction (including estimates of emissions), and the corrective actions taken.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality
Frankfort Regional Office
643 Teton Trail, Suite B
Frankfort, KY 40601

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
200 Fair Oak Lane 1st Floor
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

   a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 Section 3(1)(b) and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].

   b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
      (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
      (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
      (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
      (4) New requirements become applicable to a source subject to the Acid Rain Program.

      Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

   d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020 Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

i. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a-15-b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3) 2.].

l. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3) 4.].

o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3) 1.].

SECTION G - GENERAL PROVISIONS (CONTINUED)

p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
(1) Applicable requirements that are included and specifically identified in the permit and
(2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].

b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

3. Permit Revisions

a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

No construction authorized by this permit.

SECTION G - GENERAL PROVISIONS (CONTINUED)

5. Testing Requirements

   a. Pursuant to 401 KAR 50:045 Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

   b. Pursuant to 401 KAR 50:045 Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

   c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

   If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

7. Emergency Provisions

   a. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
      (1) An emergency occurred and the permittee can identify the cause of the emergency;

SECTION G - GENERAL PROVISIONS (CONTINUED)

(2) The permitted facility was at the time being properly operated;
(3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
(4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
(5) This requirement does not relieve the source of other local, state or federal notification requirements.

b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

8. Ozone Depleting Substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
(1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
(2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
(3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
(5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION G - GENERAL PROVISIONS (CONTINUED)

9. Risk Management Provisions

   a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

      RMP Reporting Center
      P.O. Box 1515
      Lanham-Seabrook, MD 20703-1515.

   b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None